CULTURAL RESOURCES SURVEY OF THE HUNTERS PLACE II TRACT, YORK COUNTY, SOUTH CAROLINA

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CHICORA RESEARCH CONTRIBUTION 357

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ABSTRACT

This report provides the results of a cultural resources investigation of a 100 acre tract situated in central York County, about 4.0 miles northeast of the city of York. The study was conducted by Dr. Michael Trinkley of Chicora Foundation for Mr. Tom Smith of May Green Properties and is intended to assist May Green Properties comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The tract, which extends from the Phase I portion of Hunters Place to the east, is to be used for construction of single family dwellings. The area surrounding the survey tract is also being developed into neighborhoods for this rapidly growing portion of York County.

The proposed undertaking will require the clearing of the tract, followed by construction of various infrastructure elements, such as roads, stormwater drainage, and utilities. Individual lot construction will involve grading, additional utility construction, and subsequent building of structures. These activities have the potential to affect archaeological and historical sites and this survey was conducted to identify and assess archaeological and historical sites which may be in the project tract. For this study an area of potential effect (APE) 0.5 mile around the proposed tract was assumed.

Consultation with the S.C. Department of Archives and History revealed no previously identified NRHP sites or previously surveyed architectural sites within the 0.5 mile APE. An investigation of the archaeological site files at the S.C. Institute of Archaeology and Anthropology identified two sites, 38YK186 and 38YK187, within the APE. Both sites represent a prehistoric lithic scatter with very sparse amounts of artifacts. 38YK186 had two artifacts while 38YK187 only had one artifact – none were diagnostic. Each site was recommended not eligible for inclusion on the National Register of Historic Places.

The archaeological study of the tract incorporated shovel testing at 100-foot intervals on transects which were placed at 100-foot intervals. All shovel test fill was screened through ¼-inch mesh and the shovel tests were backfilled at the completion of the study. A total of 421 shovel tests were excavated with an additional 32 shovel tests excavated for the two sites.

Two archaeological sites, 38YK416 and 38YK417, were revealed during the course of these investigations. 38YK416 consists of an early to late Archaic lithic scatter. The lithic material consisted of mostly quartz, but chert and metavolcanic materials were also found. Due to the lack of integrity from logging and cultivation, this site is recommended not eligible for inclusion on the National Register of Historic Places. 38YK417 is also a lithic scatter, probably from the Middle Archaic period. This site has also been previously logged and cultivated which decreases the integrity. This site is also recommended not eligible for inclusion on the National Register of Historic Places.

A survey of public roads within 0.5 mile of the survey area was conducted in an effort to identify any architectural sites over 50 years old which also retained their integrity. A comprehensive survey has been conducted for York County (Jaeger Company 1993), but no structures were located.

It is possible that archaeological remains may be encountered in the project area during construction. Construction crews should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office or to Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No construction should take place in the vicinity of these late discoveries until

they have been examined by an archaeologist and, if necessary, have been processed according to 36CF R800.13(b)(3).

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INTRODUCTION

This investigation was conducted by Dr. Michael Trinkley of Chicora Foundation, Inc. for Mr. Tom Smith of May Green Properties in Fort Mill, SC. The work was conducted to assist May Green Properties comply with Section 106 of the National Historic Preservation Act and the regulations codified in 36CFR800.

The project site consists of a 100 acre tract proposed to be used for the construction of a neighborhood of single family dwellings located northeast of the city of York (Figure 1). The survey area is irregular in shape with the northern portion bordering Allison Creek (Figure 2). Several logging roads are located within the tract.

The tract consists of steep ridge side slopes and very few dominate ridges. The survey encountered mostly hardwoods and dense underbrush, but some areas contained young hardwoods and pines. The surrounding area still remains fairly rural, but development is occurring rapidly.

The tract, as previously mentioned, is intended to be used for construction of a neighborhood of single family homes. This work will require the construction of utilities, such as electrical lines and sewer, as well as an expanded road system when development begins. Construction will also involve activities associated with individual home sites. There will likely be increased short-term noise, traffic, and dust levels associated with the project. These activities have the potential to cause extensive damage to any archaeological resources which may be present on the tract.

This study, however, does not consider any future secondary impact of the project, including increased or expanded development of this portion of York County.

We were requested by Mr. Tom Smith of May Green Properties to provide a proposal for the survey on July 11, 2002. This proposal was accepted shortly thereafter and work began on July 17.

Initial background investigations incorporated a review of the site files at the South Carolina Institute of Archaeology and Anthropology by Chicora Foundation. As a result of that work, two sites (38YK186 and 38YK187) were identified within the APE. These sites were recommended not eligible for inclusion on the National Register.

In addition, the South Carolina Department of Archives and History GIS was consulted to check for any NRHP buildings, districts, structures, sites, or objects in the study area. York County has received a comprehensive architectural survey (Jaeger Company 1993), so it is likely that these records are complete. No NRHP sites were found within 0.5 mile of the survey, nor did the background check reveal any previously recorded architectural sites in the project area.

Archival and historical research was limited to a review of secondary sources available in the Chicora Foundation files.

The archaeological survey was conducted on July 17-24 by Mr. Tom Covington and Ms. Nicole Southerland. The architectural survey of the project APE was conducted at the same time. Report production was conducted at Chicora's laboratories in Columbia, South Carolina from July 25-29, 2002.

This report details the investigation of the project area undertaken by Chicora Foundation and the results of that investigation.

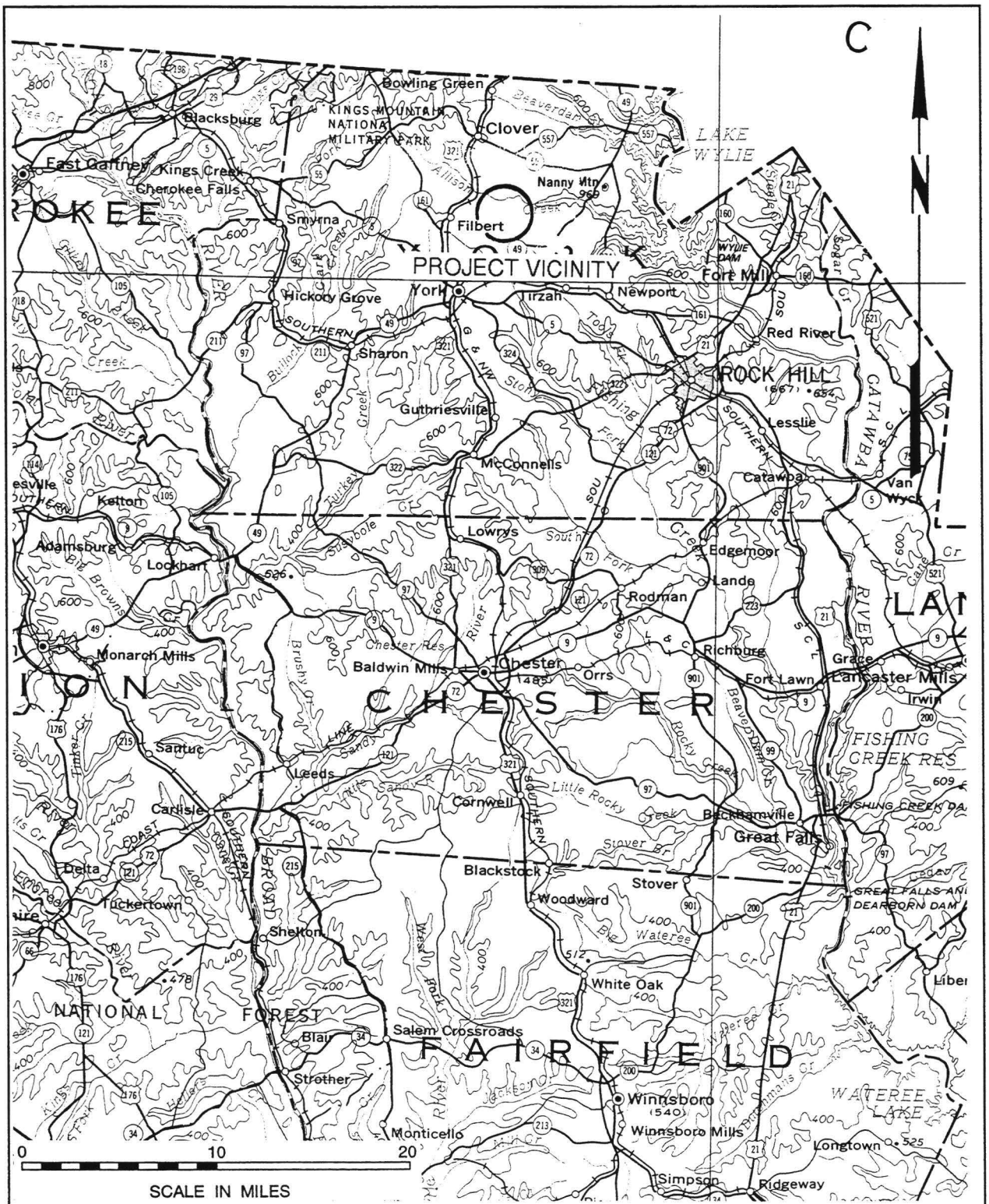

Figure 1. Project vicinity in York County (basemap is USGS South Carolina 1:500,000).

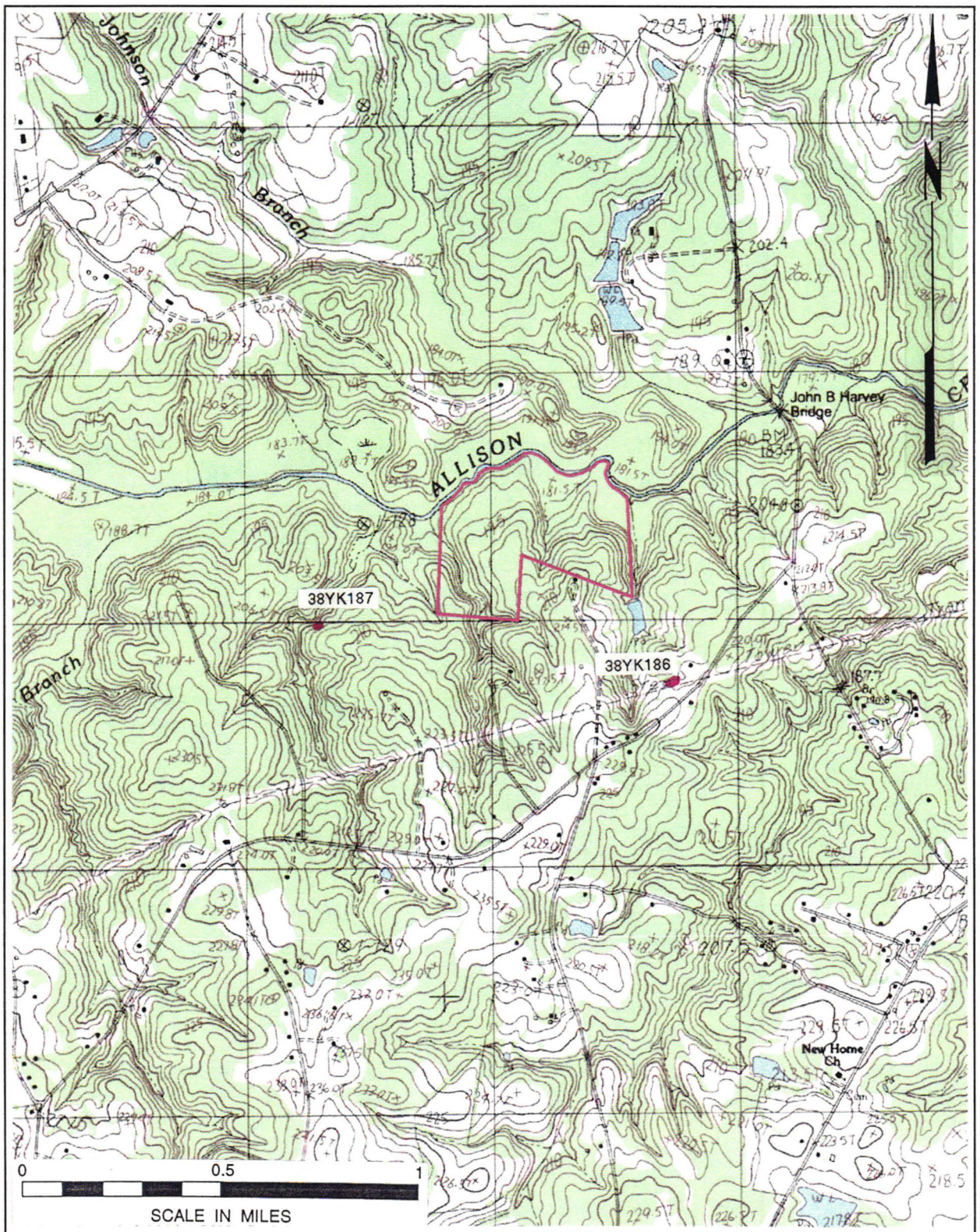

Figure 2. Project area and previously identified sites (basemap is USGS Clover 7.5').

NATURAL ENVIRONMENT

Physiographic Province

York County, forming part of South Carolina's north central boundary with North Carolina, is bordered to the east by Mecklenburg County and Lancaster County, to the south by Chester County, to the southwest by Union County, and to the west by Cherokee County.

The county is located within the Piedmont physiographic area and has a topography ranging from nearly level to steep (Camp 1965). Slopes can range from zero to 35% (Camp 1965). Slopes within the project area range from 2 to 25%.

The project area, as previously discussed is part of the Piedmont. Possibly part of the peneplain, the Piedmont is characterized by the dendritic stream patterns. It is also characterized by a range of metavolcanic, quartz, and quartzite materials used by Native Americans for stone tools. To the southeast of the county is the Coastal Plain, where the topography changes dramatically, the hilly upper Coastal Plain giving way to the broad expanses of relatively flat, level ground associated with the lower Coastal Plain. These areas provide sources for Coastal Plain cherts, also used extensively for tool manufacture and found within the project area.

In the survey area the elevations range from about 590 to 690 feet above mean sea level (AMSL). The lowest areas slope down toward Allison Creek, which provides the northern boundary of the tract.

Geology and Soils

Most of the rocks of the Piedmont are gneiss and schist, with some marble and quartzite (Hasselton 1974). Some less intensively metamorphosed rocks, such as slate, occur along the eastern part of the province from southern Virginia into Georgia. This area, called the Slate Belt, is characterized by slightly lower ground with wider river valleys. Consequently, the Slate Belt has been favored for reservoir sites (Johnson 1970), as well as prehistoric occupation (see Coe 1964). In York County many of the Piedmont soils are weathered from argillites rich in silica and alumina. Other soils are formed in saprolite that weathered from crystalline rocks and "Carolina

Figure 3. Road "A" 9+00 showing scrub vegetation facing northwest.

Figure 4. Reddish brown clay soils found along the survey area.

slates". Soils from the river floodplains formed in sediment that washed from the uplands of the Piedmont province.

The project crosses three different soil series, including Cecil sandy loams, Appling sandy loams, and Lloyd loams. The Appling series generally has a surface layer of light brownish-gray (10YR6/2) sandy loam to a depth of 0.8 foot over a yellowish-brown (10YR5/4) sandy clay loam to a depth of 1.3 feet. The subsurface consists of a red (2.5YR5/8) clay which occurs to a depth of 2.8 feet.

Cecil soils have a dark brown (10YR3/3) sandy loam to 0.5 in depth over a yellowish-red (5YR5/8) clay loam to 1.2 feet in depth. The subsoil is a red (2.5YR5/8) clay.

The Lloyd series has a reddish-brown (5YR5/3) loam to a depth of 0.7 foot over a red (2.5YR5/8) clay loam which turns into clay at about 1.4 feet in depth. Most of the survey tract, however, contained the red clay at the surface showing severe erosion.

Logging in the Carolina Piedmont, which has damaged the current survey area, will result in the loss of nearly 0.15 tons of soil per acre per year and mechanical site preparation, perhaps used in the mid-1950s to convert the agricultural fields back to woods, might have resulted in the loss of over 1 ton of soil per acre per year (U.S. Department of Agriculture 1983:25).

Climate

Elevation, latitude, and distance from the coast work together to affect the climate of South Carolina, including the Piedmont. In addition, the more westerly mountains block or moderate many of the cold air masses that flow across the state from west to east. Even the very cold air masses which cross the mountains are warmed somewhat by compression before they descend on the Piedmont.

Consequently, the climate of York County is temperate. The winters are relatively mild and the summers warm and humid. Rainfall in the amount of about 46.7 inches is adequate, although less than in some neighboring counties.

Floristics

Piedmont forests generally belong to the Oak-Hickory Formation as established by Braun (1950). Regardless, the potential natural vegetation of the project area is the Oak-Hickory-Pine forest, composed of medium tall to tall forests of broadlead deciduous and needleleaf evergreen trees (Küchler 1964). The major components of this ecosystem include hickory, shortleaf pine, loblolly pine, white oak, and post oak.

The survey area itself has areas of young pines and hardwoods, older hardwood forests, and various scrub vegetation. Even though the area has a lot of scrub vegetation, the surface visibility remains high, exposing much of the red clay surface.

Figure 5. Large rocks found in the survey area, view to the northeast.

PREHISTORIC AND HISTORIC BACKGROUND

Previous Research

Relatively little research has been done in York County. Most of the work involves compliance surveys (Derting et al. 1991). Two surveys located near the current survey area both involve road improvement projects (Caballero 1987 and Moreland Altobelli and Associates, Inc. 2001).

Prehistoric Overview

Paleoindian Period

The Paleoindian Period, most commonly dated from about 12,000 to 10,000 B.P., is evidenced by basally thinned, side-notch projectile points; fluted, lanceolate projectile points, side scrapers, end scrapers; and drills (Coe 1964; Michie 1977; Williams 1965). Oliver (1981, 1985) has proposed to extend the Paleoindian dating in the North Carolina Piedmont to perhaps as early as 14,000 B.P., incorporating the Hardaway Side-Notched and Palmer Corner-Notched types, usually accepted as Early Archaic, as representatives of the terminal phase. This view, verbally suggested by Coe for a number of years, has considerable technological appeal.[1] Oliver suggests a continuity from the Hardaway Blade through the Hardaway-Dalton to the Hardaway Side-Notched, eventually to the Palmer Side-Notched (Oliver 1985:199-200). While convincingly argued, this approach is not universally accepted.

The Paleoindian occupation, while widespread, does not appear to have been intensive. Artifacts are most frequently found along major river drainages, which Michie interprets to support the concept of an economy "oriented toward the exploitation of now extinct mega-fauna" (Michie 1977:124). Survey data for Paleoindian tools, most notably fluted points, is somewhat dated, but has been summarized by Charles and Michie 1992). They reveal a widespread distribution across the state (see also Anderson 1992b:Figure 5.1) with at least several concentrations relating to intensity of collector activity. What is clear is that points are found fairly far removed from the origin of the raw material. Charles and Miche suggest that this may "imply a geographically extensive settlement system" (Charles and Michie 1992:247).

Although data are sparse, one of the more attractive theories that explains the widespread distribution of Paleoindian sites is the model tracking the replacement of a high technology forager (or HTF) adaptation by a "progressively more generalized band/microband foraging adaption" accompanied by increasingly distinct regional traditions (perhaps reflecting movement either along or perhaps even between river drainages) (Anderson 1992b:46).

Distinctive projectile points include lanceolates such as Clovis, Dalton, perhaps the Hardaway, and Big Sandy (Coe 1964; Phelps 1983; Oliver 1985). A temporal sequence of Paleoindian projectile points was proposed by Williams (1965:24-51), but according to Phelps (1983:18) there is little stratigraphic or chronometric evidence for it. While this is certainly true, a number of authors, such as Anderson (1992a) and Oliver (1985) have assembled impressive data sets. We are inclined to believe that while often not conclusively proven by stratigraphic excavations (and such proof may be an unreasonable expectation), there is a large body of circumstantial evidence. The weight of this evidence tends to provide considerable support.

[1] While never discussed by Coe at length, he did observe that many of the Hardaway points, especially from the lowest contexts, had facial fluting or thinning which, "in cases where the side-notches or basal portions were missing, . . . could be mistaken for fluted points of the Paleo-Indian period" (Coe 1964:64). While not an especially strong statement, it does reveal the formation of the concept. Further insight is offered by Ward's (1983:63) all too brief comments on the more recent investigations at the Hardaway site (see also Daniel 1992).

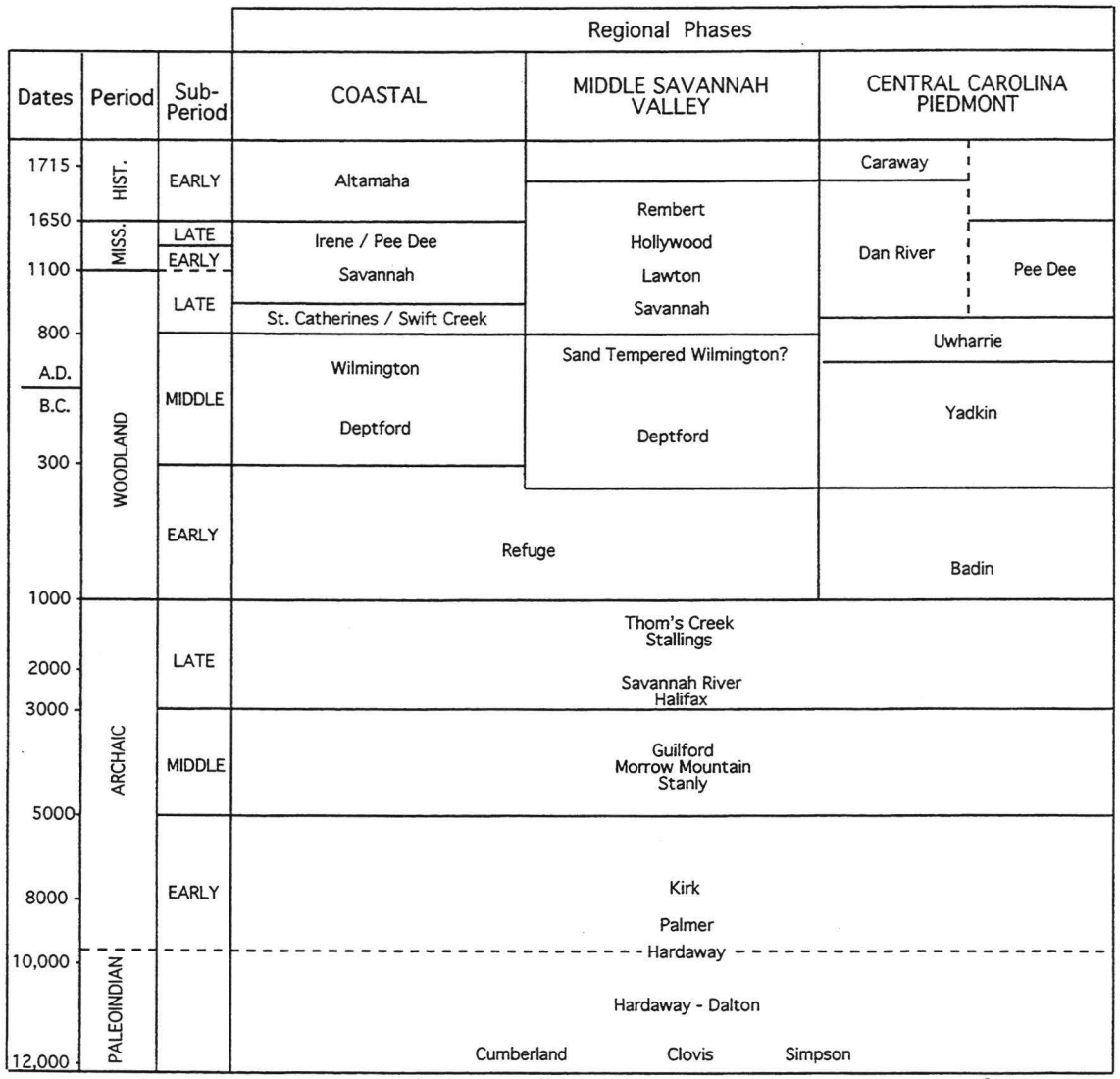

Figure 6. Generalized cultural sequence for South Carolina.

Unfortunately, relatively little is known about Paleoindian subsistence strategies, settlement systems, or social organization (see, however, Anderson 1992b for an excellent overview and synthesis of what is known). Generally, archaeologists agree that the Paleoindian groups were at a band level of society, were nomadic, and were both hunters and foragers. While population density, based on isolated finds, is thought to have been low, Walthall suggests that toward the end of the period, "there was an increase in population density and in territoriality and that a number of new resource areas were beginning to be exploited" (Walthall 1980:30).

Archaic Period

The Archaic Period, which dates from 10,000 to 3,000 B.P.[2], does not form a sharp

[2] The terminal point for the Archaic is no clearer than that for the Paleoindian and many researchers suggest a terminal date of 4,000 B.P. rather than 3,000 B.P. There is also the question of whether

break with the Paleoindian Period, but is a slow transition characterized by a modern climate and an increase in the diversity of material culture. Associated with this is a reliance on a broad spectrum of small mammals, although the white tailed deer was likely the most commonly exploited animal. Archaic period assemblages, exemplified by corner-notched and broad-stemmed projectile points, are fairly common, perhaps because the swamps and drainages offered especially attractive ecotones.

Many researchers have reported data suggestive of a noticeable population increase from the Paleoindian into the Early Archaic. This has tentatively been associated with a greater emphasis on foraging. Diagnostic Early Archaic artifacts include the Kirk Corner Notched point. As previously discussed, Palmer points may be included with either the Paleoindian or Archaic period, depending on theoretical perspective. As the climate became hotter and drier than the previous Paleoindian period, resulting in vegetational changes, it also affected settlement patterning as evidenced by a long-term Kirk phase midden deposit at the Hardaway site (Coe 1964:60). This is believed to have been the result of a change in subsistence strategies.

Settlements during the Early Archaic suggest the presence of a few very large, and apparently intensively occupied, sites which can best be considered base camps. Hardaway might be one such site. In addition, there were numerous small sites which produce only a few artifacts — these are the "network of tracks" mentioned by Ward (1983:65). The base camps produce a wide range of artifact types and raw materials which has suggested to many researchers long-term, perhaps seasonal or multi-seasonal, occupation. In contrast, the smaller sites are thought of as special purpose or foraging sites (see Ward 1983:67).

Middle Archaic (8,000 to 6,000 B.P.) diagnostic artifacts include Morrow Mountain, Guilford, Stanly and Halifax projectile points. Much of our best information on the Middle Archaic comes from sites investigated west of the Appalachian Mountains, such as the work by Jeff Chapman and his students in the Little Tennessee River Valley (for a general overview see Chapman 1977, 1985a, 1985b). There is good evidence that Middle Archaic lithic technologies changed dramatically. End scrapers, at times associated with Paleoindian traditions, are discontinued, raw materials tend to reflect the greater use of locally available materials, and mortars are initially introduced. Associated with these technological changes there seem to also be some significant cultural modifications. Prepared burials begin to more commonly occur and storage pits are identified. The work at Middle Archaic river valley sites, with their evidence of a diverse floral and faunal subsistence base, seems to stand in stark contrast to Caldwell's Middle Archaic "Old Quartz Industry" of Georgia and the Carolinas, where axes, choppers, and ground and polished stone tools are very rare.

Among the most common of all Middle Woodland artifacts is the Morrow Mountain Stemmed projectile point. Originally divided into two varieties by Coe (1964:37,43) based primarily on the size of the blade and the stem. Morrow Mountain I points had relatively small triangular blades with short, pointed stems. Morrow Mountain II points had longer, narrower blades with long, tapered stems. Coe suggested a temporal sequence from Morrow Mountain I to Morrow Mountain II. While this has been rejected by some archaeologists, who suggest that the

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ceramics, such as the fiber-tempered Stallings ware, will be included as Archaic, or will be included with the Woodland. Oliver, for example, argues that the inclusion of ceramics with Late Archaic attributes "complicates and confuses classification and interpretation needlessly" (Oliver 1981:20). He comments that according to the original definition of the Archaic, it "represents a preceramic horizon" and that "the presence of ceramics provides a convenient marker for separation of the Archaic and Woodland periods (Oliver 1981:21). Others would counter that such an approach ignores cultural continuity and forces an artificial, and perhaps unrealistic, separation. Sassaman and Anderson (1994:38-44), for example, include Stallings and Thom's Creek wares in their discussion of "Late Archaic Pottery." While this issue has been of considerable importance along the Carolina and Georgia coasts, it has never affected the Piedmont, which seems to have embraced pottery far later, well into the conventional Woodland period. The importance of the issue in the Sandhills, unfortunately, is not well known.

differences are entirely related to the life-stage of the point, the debate is far from settled and Coe has considerable support for his scenario.

The Morrow Mountain point is also important in our discussions since it represents a departure from the Carolina Stemmed Tradition. Coe has suggested that the groups responsible for the Middle Archaic Morrow Mountain (and the later Guilford points) were intrusive ("without any background" in Coe's words) into the North Carolina Piedmont, from the west, and were contemporaneous with the groups producing Stanly points (Coe 1964:122-123; see also Phelps 1983:23). Phelps, building on Coe, refers to the Morrow Mountain and Guilford as the "Western Intrusive horizon." Sassaman (1995) has recently proposed a scenario for the Morrow Mountain groups which would support this west-to-east time-transgressive process. Abbott and his colleagues, perhaps unaware of Sassaman's data, dismiss the concept, commenting that the shear distribution and number of these points "makes this position wholly untenable" (Abbott et al. 1995:9).

The controversy surrounding Morrow Mountain also includes its posited date range. Coe (1964:123) did not expect the Morrow Mountain to predate 6500 B.P., yet more recent research in Tennessee reveals a date range of about 7500 to 6500 B.P. Sassaman and Anderson (1994:24) observe that the South Carolina dates have never matched the antiquity of their more western counterparts and suggest continuation to perhaps as late as 5500 B.P. In fact they suggest that even later dates are possible since it can often be difficult to separate Morrow Mountain and Guilford points.

A recently defined point is the MALA. The term is an acronym standing for Middle Archaic and Late Archaic, the strata in which these points were first encountered at the Pen Point site (38BR383) in Barnwell County, South Carolina (Sassaman 1985). These stemmed and notched lanceolate points were originally found in a context suggesting a single-episode event with variation not based on temporal variation. The original discussion was explicitly worded to avoid application of a typology, although as Sassaman and Anderson (1994:27) note, the "type" has spread into more common usage. There are possible connections with both the Halifax points of North Carolina and the Benton points of the middle Tennessee River valley, while the "heartland" for the MALA appears confined to the lower middle Coastal Plain of South Carolina.

The available information has resulted in a variety of competing settlement models. Some argue for increased sedentism and a reduction of mobility (see Goodyear et al. 1979:111). Ward argues that the most appropriate model is one which includes relatively stable and sedentary hunters and gatherers "primarily adapted to the varied and rich resource base offered by the major alluvial valleys" (Ward 1983:69). While he recognizes the presence of "inter-riverine" sites, he discounts explanations which focus on seasonal rounds, suggesting "alternative explanations . . . [including] a wide range of adaptive responses." Most importantly, he notes that:

> the seasonal transhumance model and the sedentary model are opposite ends of a continuum, and in all likelihood variations on these two themes probably existed in different regions at different times throughout the Archaic period (Ward 1983:69).

Others suggest increased mobility during the Archaic (see Cable 1982). Sassaman (1983) has suggested that the Morrow Mountain phase people had a great deal of residential mobility, based on the variety of environmental zones they are found in and the lack of site diversity. The high level of mobility, coupled with the rapid replacement of these points, may help explain the seemingly large numbers of sites with Middle Archaic assemblages. Curiously, the later Guilford phase sites are not as widely distributed, perhaps suggesting that only certain micro-environments were used (cf. Ward [1983:68-69] who would likely reject the notion that substantially different environmental zones are, in fact, represented).

Recently Abbott et al. argue for a combination of these models, noting that the

almost certain increase in population levels probably resulted in a contraction of local territories. With small territories there would have been significantly greater pressure to successfully exploit the limited resources by more frequent movement of camps. They discount the idea that these territories could have been exploited from a single base camp without horticultural technology. Abbott and his colleagues conclude, "increased residential mobility under such conditions may in fact represent a common stage in the development of sedentism" (Abbott et al. 1995:9).

From excavations at a Sandhills site in Chesterfield County, South Carolina, Gunn and his colleague (Gunn and Wilson 1993) offer an alternative model for Middle Archaic settlement. He accepts that the uplands were desiccated from global warming, but rather than limiting occupation, this environmental change made the area more attractive for residential base camps. Gunn and Wilson suggest that the open, or fringe, habitat of the upland margins would have been attractive to a wide variety of plant and animal species.

The Late Archaic, usually dated from 6,000 to 3,000 or 4,000 B.P., is characterized by the appearance of large, square stemmed Savannah River projectile points (Coe 1964). These people continued to intensively exploit the uplands much like earlier Archaic groups with, the bulk of our data for this period coming from the Uwharrie region in North Carolina.

One of the more debated issues of the Late Archaic is the typology of the Savannah River Stemmed and its various diminutive forms. Oliver, refining Coe's (1964) original Savannah River Stemmed type and a small variant from Gaston (South 1959:153-157), developed a complete sequence of stemmed points that decrease uniformly in size through time (Oliver 1981, 1985). Specifically, he sees the progression from Savannah River Stemmed to Small Savannah River Stemmed to Gypsy Stemmed to Swannanoa from about 5000 B.P. to about 1,500 B.P. He also notes that the latter two forms are associated with Woodland pottery.

This reconstruction is still debated with a number of archaeologists expressing concern with what they see as typological overlap and ambiguity. They point to a dearth of radiocarbon dates and good excavation contexts at the same time they express concern with the application of this typology outside the North Carolina Piedmont (see, for a synopsis, Sassaman and Anderson 1990:158-162, 1994:35).

In addition to the presence of Savannah River points, the Late Archaic also witnessed the introduction of steatite vessels (see Coe 1964:112-113; Sassaman 1993), polished and pecked stone artifacts, and grinding stones. Some also include the introduction of fiber-tempered pottery about 4000 B.P. in the Late Archaic (for a discussion see Sassaman and Anderson 1994:38-44). This innovation is of special importance along the Georgia and South Carolina coasts, but seems to have had only minimal impact in the uplands of South or North Carolina.

There is evidence that during the Late Archaic the climate began to approximate modern climatic conditions. Rainfall increased resulting in a more lush vegetation pattern. The pollen record indicates an increase in pine which reduced the oak-hickory nut masts which previously were so widespread. This change probably affected settlement patterning since nut masts were now more isolated and concentrated. From research in the Savannah River valley near Aiken, South Carolina, Sassaman has found considerable diversity in Late Archaic site types with sites occurring in virtually every upland environmental zone. He suggests that this more complex settlement pattern evolved from an increasingly complex socio-economic system. While it is unlikely that this model can be simply transferred to the Sandhills of South Carolina without an extensive review of site data and micro-environmental data, it does demonstrate one approach to understanding the transition from Archaic to Woodland.

Woodland Period

As previously discussed, there are those who see the Woodland beginning with the introduction of pottery. Under this scenario the Early Woodland may begin as early as 4,500 B.P. and continued to about 2,300 B.P. Diagnostics would include the small variety of the Late

Archaic Savannah River Stemmed point (Oliver 1985) and pottery of the Stallings and Thoms Creek series. These sand tempered Thoms Creek wares are decorated using punctations, jab-and-drag, and incised designs (Trinkley 1976). Also potentially included are Refuge wares, also characterized by sandy paste, but often having only a plain or dentate-stamped surface (Waring 1968). Others would have the Woodland beginning about 3,000 B.P. and perhaps as late as 2,500 B.P. with the introduction of pottery which is cord-marked or fabric-impressed and suggestive of influences from northern cultures.

There remains, in South Carolina, considerable ambiguity regarding the pottery series found in the Sandhills and their association with coastal plain and piedmont types. The earliest pottery found at many sites may be called either Deptford or Yadkin, depending on the research or their inclination at any given moment.

The Deptford phase, which dates from 3050 to 1350 B.P., is best characterized by fine to coarse sandy paste pottery with a check stamped surface treatment. The Deptford settlement pattern involves both coastal and inland sites.

Inland sites such as 38AK228-W, 38LX5, 38RD60, and 38BM40 indicate the presence of an extensive Deptford occupation on the Fall Line and the Inner Coastal Plain/Sand Hills, although sandy, acidic soils preclude statements on the subsistence base (Anderson 1979; Ryan 1972; Trinkley 1980). These interior or upland Deptford sites, however, are strongly associated with the swamp terrace edge, and this environment is productive not only in nut masts, but also in large mammals such as deer. Perhaps the best data concerning Deptford "base camps" comes from the Lewis-West site (38AK228-W), where evidence of abundant food remains, storage pit features, elaborate material culture, mortuary behavior, and craft specialization has been reported (Sassaman et al. 1990:96-98; see also Sassaman 1993 for similar data recovered from 38AK157).

Further to the north and west, in the Piedmont, the Early Woodland is marked by a pottery type defined by Coe (1964:27-29) as Badin.[3] This pottery is identified as having very fine sand in the paste with an occasional pebble. Coe identified cord-marked, fabric-marked, net-impressed, and plain surface finishes. Beyond this pottery little is known about the makers of the Badin wares and relatively few of these sherds are reported from South Carolina sites.

Somewhat more information is available for the Middle Woodland, typically given the range of about 2,300 B.P. to 1,200 B.P. In the Piedmont and even into the Sand Hills, the dominant Middle Woodland ceramic type is typically identified as the Yadkin series. Characterized by a crushed quartz temper the pottery includes surface treatments of cord-marked, fabric-marked, and a very few linear check-stamped sherds (Coe 1964:30-32). It is regrettable that several of the seemingly "best" Yadkin sites, such as the Trestle site (31An19) explored by Peter Cooper (Ward 1983:72-73), have never been published.

Yadkin ceramics are associated with medium-sized triangular points, although Oliver (1981) suggests that a continuation of the Piedmont Stemmed Tradition to at least 1650 B.P. coexisted with this Triangular Tradition. The Yadkin in South Carolina has been best explored by research at 38SU83 in Sumter County (Blanton et al. 1986) and at 38FL249 in Florence County (Trinkley et al. 1993)

In some respects the Late Woodland (1,200 B.P. to 400 B.P.) may be characterized as a continuation of previous Middle Woodland cultural assemblages. While outside the Carolinas there were major cultural changes, such as the continued development and elaboration of agriculture, the Carolina groups settled into a lifeway not appreciably different from that observed for the previous 500-700 years. From the vantage point of the Middle Savannah Valley Sassaman and his colleagues note that, "the Late Woodland is difficult to delineate typologically from

[3] The ceramics suggest clear regional differences during the Woodland which seem to only be magnified during the later phases. Ward (1983:71), for example, notes that there "marked distinctions" between the pottery from the Buggs Island and Gaston Reservoirs and that from the south-central Piedmont.

its antecedent or from the subsequent Mississippian period" (Sassaman et al. 1990:14). This situation would remain unchanged until the development of the South Appalachian Mississippian complex (see Ferguson 1971).

Historic Overview

York County, part of Anson County, North Carolina in 1750, was first settled by Scotch-Irish settlers who also inhabited the counties of Chester and Lancaster. In 1763, the lands of modern York County became Mecklenburg County, North Carolina, and finally Tryon County, North Carolina. It was in 1772 when the a boundary dispute between the Carolinas was settled and gave York County to South Carolina.

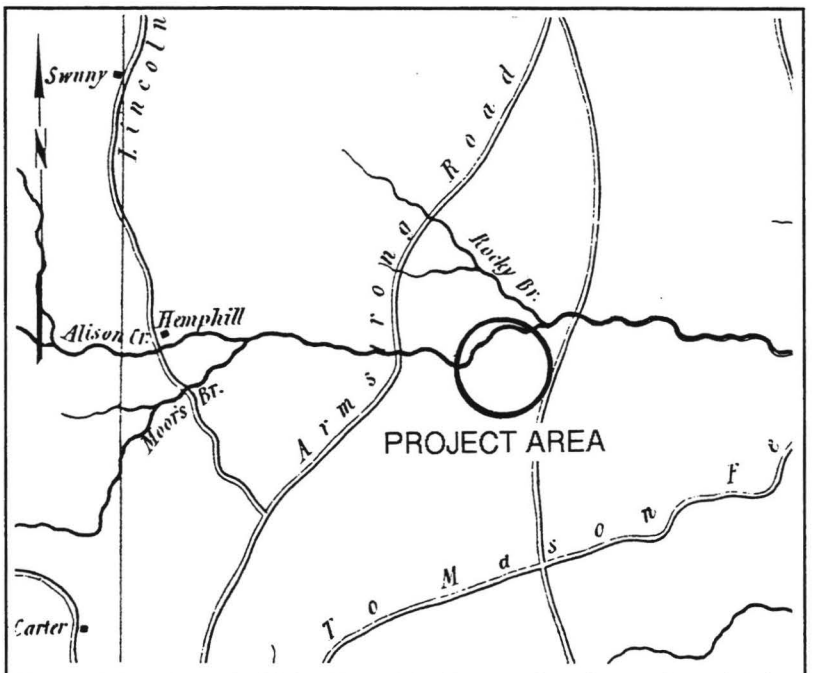

Figure 7. Portion of Mills' *Atlas* of 1865 showing the project vicinity.

After the Revolution, agriculture remained as the predominant industry, although gold mining became an important industry during the nineteenth century. York County was ranked fourth in the production of gold in the state of South Carolina (Catawba Regional Planning Council 1975). By 1826, cotton was the principal crop grown in York County with other staples of wheat, corn, rye, and tobacco also bringing money into the economy (Mills 1826). It is also at this time that Mills (1826) reports that no other Indian settlements exist in the district except those on the Catawba River.

The nineteenth century in York County saw a significant population increase due to the black slaves used as labor for the rising cotton market (York County Census 1860). In 1860, almost have of the County's population was slave labor (York County Census 1860). The boom in York County's economy was no doubt due to the establishment of roads and the arrival of the Charlotte and South Carolina Railroad in 1852. The line operated for ten years, bringing new goods and services to York County until it was destroyed during the Civil War (Rock Hill School District No. 3 1970).

Although only one battle, Nation Ford, was fought during the Civil War in York County, growth for the county decreased significantly. Reconstruction after the war forced many farmers to downsize their already small farms.

In 1880, the Rock Hill Cotton Factory was built to become the first steam-powered cotton factory in South Carolina. This led to an expansion of agriculture and industry and eventually led to the construction of other factories including the Anderson Automobile and the Fort Mill Manufacturing Company, which was the forerunner of Springs Industries.

York County's industry remained constant until the 1920s when the years of farming cotton began to erode the soil and destruction by the boll weevil further damaged cotton production. The Great Depression further pushed the County into stagnation.

York County became heavily dependent on industrial sites, including the Catawba Dam and Power Plant which eventually caused the establishment of the Duke Power Company which is still in use today (Kissane and Kissane 1992). A series of dams and hydroelectric facilities were constructed on the Catawba River in North and

South Carolina which revitalized the economy once again.

By 1941, York County was one of the five most industrialized counties in South Carolina (Petty 1941). The 1950 *General Highway and Transportation Map of York County* does not show any structures within the project area, but almost every road surrounding the project area has structures showing the large population of the county (Figure 8). In the early 1980s, the county ranked thirty-second in South Carolina for cash receipts from agriculture (Petty 1941) and at this time several institutions of higher learning were established to further continue the increase in York County's economy.

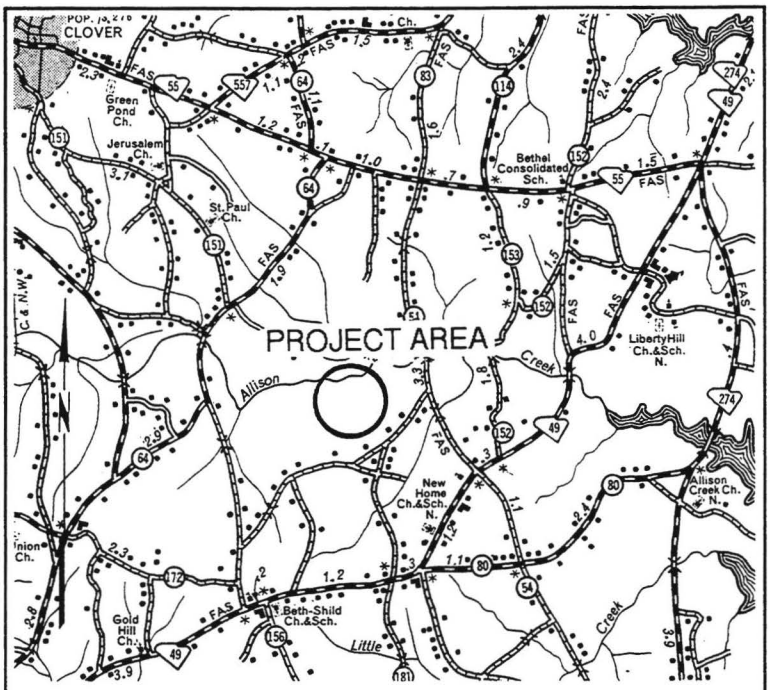

Figure 8. Portion of the 1950 *General Highway and Transportation Map of York County* showing the project area.

RESEARCH METHODS

Archaeological Field Methods

The initially proposed field techniques involved the placement of shovel tests at 100 foot intervals along transects placed at 100 foot intervals.

All soil would be screened through ¼-inch mesh, with each test numbered sequentially by transect. Each test would measure about 1 foot square and would normally be taken to a depth of at least 1 foot or until sterile subsoil was encountered. All cultural remains would be collected, except for mortar and brick, which would be quantitatively noted in the field and discarded. Notes would be maintained for profiles at any sites encountered. A total number of 421 shovel tests were excavated with 32 additional shovel tests performed at the sites.

Should sites (defined by the presence of two or more artifacts from either surface survey or shovel tests within a 50 feet area) be identified, further tests would be used to obtain data on site boundaries, artifact quantity and diversity, site integrity, and temporal affiliation. These tests would be placed at 25 to 50 feet intervals in a simple cruciform pattern until two consecutive negative shovel tests were encountered. The information required for completion of South Carolina Institute of Archaeology and Anthropology site forms would be collected and photographs would be taken, if warranted in the opinion of the field investigators.

These proposed techniques were implemented with no significant modifications. A series of 30 transects were established running primarily east-west along the southern boundary of the tract. Individual shovel tests were numbered to the north and south along these transects. Virtually the entire portion of the 100 acres had been logged and cultivated prior to the survey so much of the area was sparsely covered with young pines and hardwoods. Several underbrush varieties had grown up, but the tract still retained a 75-100% visibility in most areas, although further into the forest, the vegetation was a more dense. The topography in this area was steep with no distinct ridge tops and extensive soil disturbance. Throughout the shovel tests revealed mostly red clay, typical of disturbed soils in this area.

Site locations were identified using a Global Positioning System for the recordation of the UTMs. The GPS positions were taken with a Garmin GPS 12XL rover that tracks up to twelve satellites, each with a separate channel that is continuously being read. The benefit of parallel channel receivers is their improved sensitivity and ability to obtain and hold a satellite lock in difficult situations, such as in forests or urban environments where signal obstruction is a frequent problem. This was not a vital consideration for the study area.

GPS accuracy is generally affected by a number of sources of potential error, including errors with satellite clocks, multipathing, and selective availability. Satellite clock errors can occur when the satellite's clock is off by as little as a millisecond, or when a slightly-askew orbit results in a distance error. multipathing occurs when the signal bounces off trees, chain-link fences, or bodies of water. Multipathing probably did not occur during this survey due to the fairly clear area where the artifacts were found. The source of most extreme GPS errors is selective availability (SA), which has been turned off by the Department of Defense.

Architectural Survey

As previously discussed, we elected to use a 0.5 mile area of potential effect (APE). The architectural survey would record buildings, sites, structures, and objects which appeared to have been constructed before 1950 and which retained their integrity. Those which have undergone such

Figure 9. Survey area and transects (basemap is USGS Clover 7.5').

extensive modifications to preclude their eligibility were not recorded.

For each identified resource an architectural survey form would be completed and at least two representative photographs would be taken. Permanent control numbers would be assigned by the S.C. Department of Archives and History at the conclusion of the study. The site forms for the resources identified during this study would then be submitted to the South Carolina State Historic Preservation Office.

Site Evaluation

Archaeological sites will be evaluated for further work based on the eligibility criteria for the National Register of Historic Places. Chicora Foundation only provides an opinion of National Register eligibility and the final determination is made by the lead federal agency, in consultation with the State Historic Preservation Officer at the South Carolina Department of Archives and History.

The criteria for eligibility to the National Register of Historic Places is described by 36CFR60.4, which states:

> the quality of significance in American history, architecture, archaeology, engineering, and culture is present in districts, sites, buildings, structures, and objects that possess integrity of location, design, setting, materials, workmanship, feeling, and association, and
>
> a. that are associated with events that have made a significant contribution to the broad patterns of our history; or
>
> b. that are associated with the lives of persons significant in our past; or
>
> c. that embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or
>
> d. that have yielded, or may be likely to yield, information important in prehistory or history.

National Register Bulletin 36 (Townsend et al. 1993) provides an evaluative process that contains five steps for forming a clearly defined explicit rationale for either the site's eligibility or lack of eligibility. Briefly, these steps are:

- identification of the site's data sets or categories of archaeological information such as ceramics, lithics, subsistence remains, architectural remains, or sub-surface features;
- identification of the historic context applicable to the site, providing a framework for the evaluative process;
- identification of the important research questions the site might be able to address, given the data sets and the context;
- evaluation of the site's archaeological integrity to ensure that the data sets were sufficiently well preserved to address the research questions; and
- identification of important research questions among all of those which might be asked and answered at the site.

This approach, of course, has been developed for use documenting eligibility of sites being actually nominated to the National Register of Historic Places where the evaluative process must stand alone, with relatively little reference to

other documentation and where typically only one site is being considered. As a result, some aspects of the evaluative process have been summarized, but we have tried to focus on each archaeological site's ability to address significant research topics within the context of its available data sets.

Laboratory Analysis

The cleaning and analysis of artifacts was conducted in Columbia at the Chicora Foundation laboratories. These materials have been catalogued and accessioned for curation at the South Carolina Institute of Archaeology and Anthropology, the closest regional repository. The site forms for the identified archaeological sites have been filed with the South Carolina Institute of Archaeology and Anthropology. Field notes have been prepared for curation using archival standards and will be transferred to that agency as soon as the project is complete.

Analysis methods focused on occupation spans, likely functions of the various sites and changes in raw material or ceramic preferences. With prehistoric sites, diagnostic lithics and/or pottery provide temporal information.

Debitage categories might include primary (defined as flakes with 90% or more cortex), secondary (defined as having less than 90% cortex), or interior (defined as having no cortex). These categories, widely used, are briefly explained by Yohe (1996:54-56; for further information see Blanton et al. 1986 or Oliver et al. 1986).

Shatter is often called chunks by other researchers. Either term is typically applied to angular pieces of debitage of various sizes. They lack observable striking platforms, dorsal and ventral faces, or other characteristics of flakes. These items are often, although not always blocky and angular. Shatter is thought to have been produced in greatest numbers in the very earliest stages of tool production.

Points, also called hafted bifaces by some, are symmetrical, pointed bifaces which are modified for hafting. The diagnostic lithic remains were compared to published typological descriptions for the various projectile points such as Coe (1952, 1964), Oliver (1981), and South (1959). Items which can not be securely identified because of damage or which lack the often definitive basal sections are classified simply as bifaces.

At this survey level tools are defined very simply, being placed in broad morphological categories. Our laboratory methods, for example, define a biface as an artifact with flakes removed on both sides (not distinguishing between preforms, early stage reductions, and so forth); a core is a piece of raw material from which flakes have been removed; an end scraper is a blade tool with at least one convex end which exhibits a steep angle; a used flake is a chip of stone that was used as a tool, exhibiting edge damage or wear; and a side scraper is a flake tool in which one of the long edges was retouched to serve as the scraping edge. These definitions generally follow those provided by Yohe (1996).

RESULTS OF SURVEY

Introduction

As a result of this cultural resources survey two sites (39YK416 and 38YK417) were identified. Both of these archaeological sites had poor integrity and could not be used to answer questions about these periods in prehistory. Therefore, both sites are recommended not eligible for inclusion on the National Register of Historic Places.

Archaeological Sites

38YK416

Site 38YK416 (Figure 10) consists of a surface and sparse subsurface scatter of prehistoric lithics. It is situated on a ridge side slope at an elevation of about 640 feet AMSL. Allison Creek is about 800 feet north of the site. Topography is steep in the area, but the site area is fairly level.

Typical vegetation around the area includes pines and hardwoods, but the site itself is found in a disturbed area where a logging road is situated. Sparse scrub is in the site area, but the site maintains a 75-100% surface visibility. A central UTM coordinate for the site is E484952 N3879293 (NAD27 datum).

Although shovel tests were completed at the originally proposed 100-foot intervals, this site was initially discovered through a pedestrian survey. None of the original shovel tests were positive, but additional site testing revealed only two positive shovel tests (N300E150 and N150 E150) out of the 18 excavated within the site area. N300E150 had a chert flake and a quartz biface tip while N150E150 had a quartz biface tip and a metavolcanic biface tip.

Shovel tests in the site area produced Appling sandy loams which generally have a surface layer of light brownish-gray (10YR6/2) sandy loam to a depth of 0.8 foot over a yellowish-brown (10YR5/4) sandy clay loam to a depth of 1.3 feet. The subsurface consists of a red (2.5YR5/8) clay which occurs to a depth of 2.8 feet. Although the site only produced the red clay which means the top 1.3 feet have been removed, most likely from logging and cultivation activities.

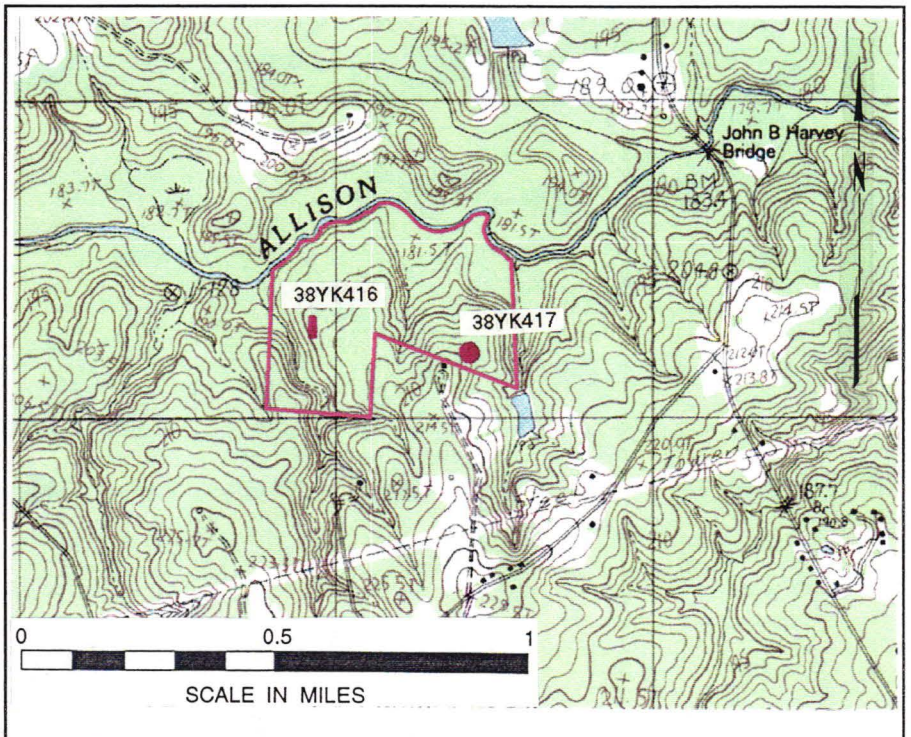

Figure 10. Survey area with identified sites.

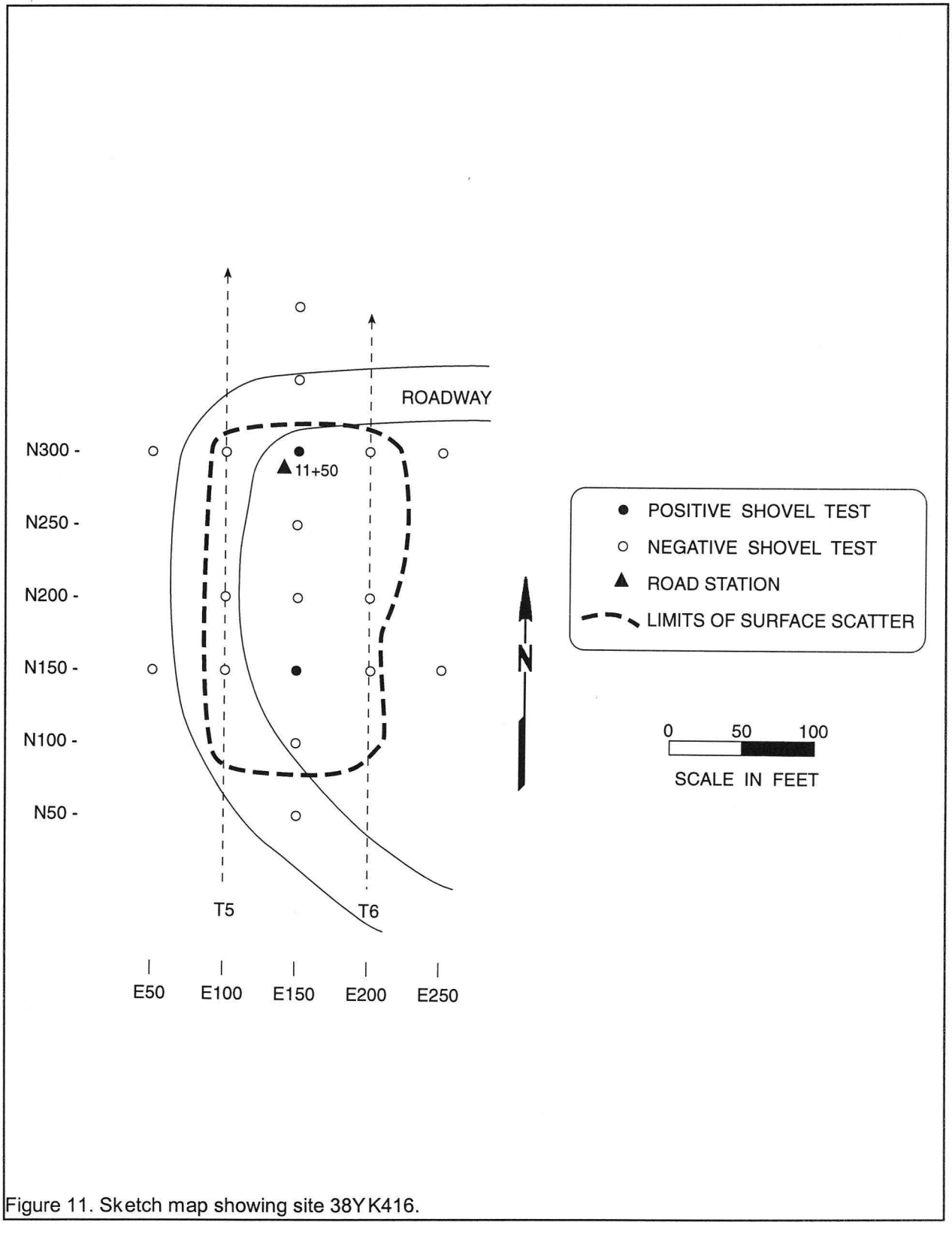

Figure 11. Sketch map showing site 38YK416.

Table 1
Artifacts found at 38YK416

	N300E150	N150E150	Surface
Savannah River Stem			1
Kirk Serrated point			1
Guilford Lanceolate			1
Biface, metavolcanic		1	1
Biface, quartz tip	1	1	1
Biface, quartz			1
Biface, quartz base			1
Flakes, metavolcanic			1
Flakes, chert	1		9
Flakes, quartz			16

The surface collection (Table 1) revealed mostly quartz lithics which are representative of the type of rocks found in the area. Some metavolcanic rocks and chert were also found. Only three artifacts were diagnostic: a Savannah River stem, a Guilford Lanceolate point, and a Kirk Serrated point — all characteristic of the Early through Late Archaic.

The Savannah River Stemmed point has an estimated length of 75.0 mm, a base width of 40.2 mm, a stem width of 20.2 mm, a stem height of 7.4 mm, and a thickness of 15.8 mm. This is at the low end, but within the range, proposed by Coe (1964:44).

The Guilford Lanceolate point has an estimated length of 58.0 mm, a width of 23.0 mm, and a thickness of 12.6 mm. This is again at the low end, but within the type specimen range (Coe 1964:43).

The Kirk point has an estimated length of 49.7 mm, and a width of 20.9 mm, within the range proposed by Coe (1964:70).

The surface collection extends across the entire site area, approximately 100 feet by 200 feet. At least some of this dispersion is likely the result of construction related activities. The site appears to represent a series of merging Archaic camps and this repeated occupation over a span of perhaps 4,000 years may also account for the site size.

Data sets at this site include both finished tools and a small assortment of both bifaces and flakes. Only two of the 18 shovel tests, however, produced in situ materials, with most of the remains found on the heavily eroded surface. Given the damage to the site and the lack of intact features or deposits, it is unlikely that the site can address the range of significant Archaic Period research questions which have been posed (see, for example, Sassaman and Anderson 1994).

As a result, we recommend 38YK416 not eligible for inclusion on the National Register of Historic Places. No additional management

Figure 12. View of 38YK416 looking southeast.

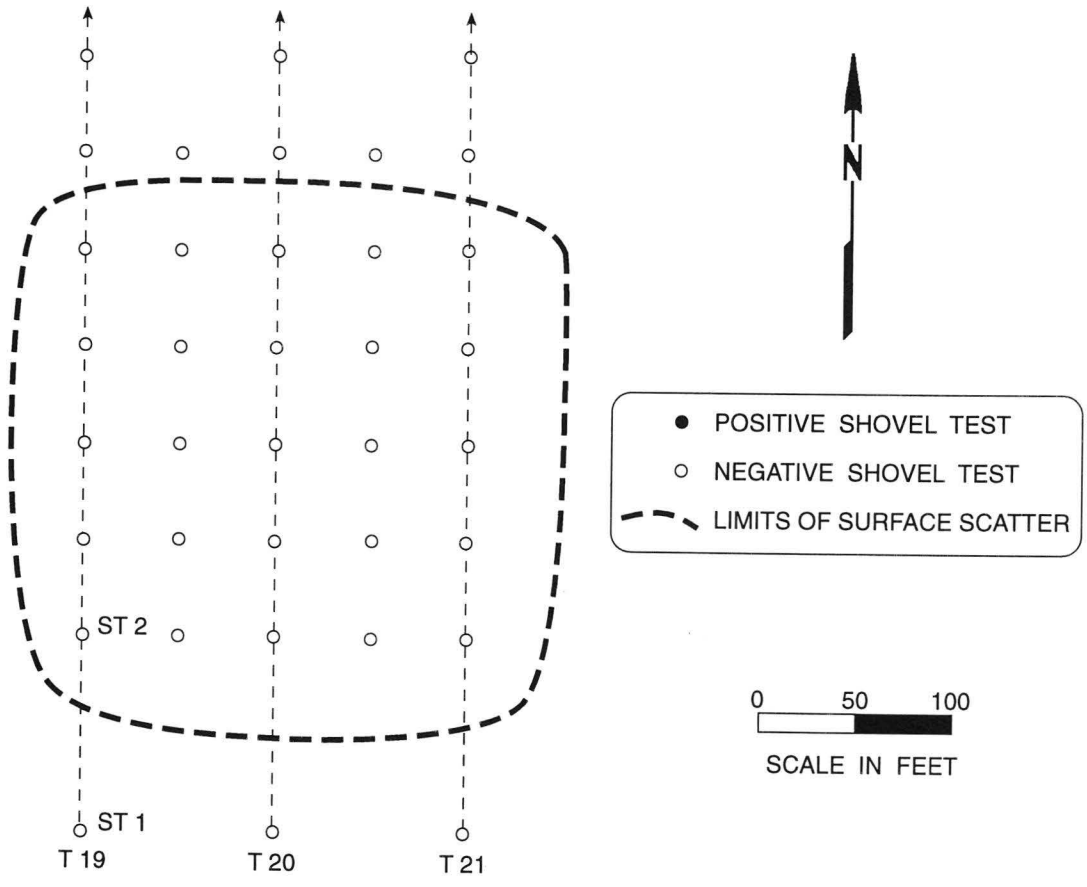

Figure 13. Sketch map of 38YK417.

Table 2.
Artifacts from 38YK417

	Surface
Guilford Lanceolate	2
Morrow Mountain I	1
Biface, quartz	2
Biface, quartz tip	1
Flakes, metavolcanic	13
Flakes, quartz	23

activities are recommended, pending the review and comments of the lead federal agency and the State Historic Preservation Office.

38YK417

Site 38YK417 consists of a surface scatter of prehistoric lithics. It is located on a ridge side slope at an elevation of about 679 feet AMSL. A central UTM coordinate for the site is E485434 N3879212 (NAD27 datum).

The site is located about 1,200 feet south of Allison Creek in a fallow area of very young and sparse pines and hardwoods. Much of the area is bare, exposing the red clay subsoil and retains a 75-100% surface visibility.

Shovel tests were completed at the proposed 100-foot intervals, but none were positive. The shovel tests revealed soils from the Appling series which generally have a surface layer of light brownish-gray (10YR6/2) sandy loam to a depth of 0.8 foot over a yellowish-brown (10YR5/4) sandy clay loam to a depth of 1.3 feet. The subsurface consists of a red (2.5YR5/8) clay which occurs to a depth of 2.8 feet. As previously mentioned, only the red clay subsoil remained, showing high erosion most likely from logging and cultivation.

The surface survey (Table 2) revealed only lithics. The collection produced only three diagnostic artifacts: two Guilford Lanceolate points and one Morrow Mountain I point — dating from the Middle Archaic.

The Guilfords measure 50.2 mm in length, 21.6 mm in width, with a thickness of 11.0 mm and 47.3 mm in length, 21.4 mm in width, with a thickness of 11.9 mm. The former is at the low end of the size range proposed by Coe (1964:43), while the latter is just outside the smallest range, possibly the result of repeated resharpening.

The Morrow Mountain I point had an estimated length of 44.2 mm, a width of 28.8 mm, and a thickness of 10.3 mm. This point is very

Figure 14. View of 38YK417 looking west.

close to the midpoint or average described by Coe (1964:37) for this particular type.

As mentioned in site 38YK416, this site is likely the result of a short-term, temporary occupation by Middle Archaic people. The site, however, reveals extensive erosion and disturbance and no materials were found in situ. The surface scatter is not able to address significant research questions appropriate to this time period (see Sassaman and Anderson 1994) and the site is recommended not eligible for inclusion on the National Register of Historic Places. No additional management activities are recommended, pending the review and concurrence by the lead federal agency and the State Historic Preservation Office.

Architectural Sites

There are no architectural or historical sites identified within the 0.5 mile APE. Most of the structures visible from the road appear to be modern, perhaps constructed within the past two to three decades.

CONCLUSIONS

This study involved the examination of a 100 acre tract situated in central York County, South Carolina. The tract is proposed for the construction of single family dwellings. This report, conducted for May Green Properties, provides the results of that investigation and is intended to assist that organization comply with their historic preservation responsibilities.

The survey area consists of areas of young pines, hardwoods and various underbrush. The archaeological survey, which included close interval shovel testing, conducted at 100-foot intervals, revealed eroded soils and two sites, 38YK416 and 38YK417, uncovered. 38YK416 consists of an Early to Late Archaic lithic scatter. Due to logging and cultivation, the integrity of this site has been greatly damaged. It is also unlikely that this site will be able to answer any significant research questions about the Archaic period. 38YK416 is recommended not eligible for inclusion on the National Register of Historic Places. Site 38YK417 is also a lithic scatter, dating to the Middle Archaic. The integrity has also been damaged at this site through previous logging and cultivation. This site is recommended not eligible for inclusion on the National Register of Historic Places.

The surrounding areas are still fairly rural with several small non-historic houses near the project area. Nevertheless, an APE 0.5 mile around the project area was examined, but no historic structures were identified which are intact and which appear to be potentially eligible for inclusion on the National Register of Historic Places. A comprehensive survey has been conducted for York County (Jaeger Company 1993), but no structures were located near the project area.

It is possible that archaeological remains may be encountered in the area during construction. As always, the utility's contractors should be advised to report any discoveries of concentrations of artifacts (such as bottles, ceramics, or projectile points) or brick rubble to the project engineer, who should in turn report the material to the State Historic Preservation Office, or Chicora Foundation (the process of dealing with late discoveries is discussed in 36CFR800.13(b)(3)). No further land altering activities should take place in the vicinity of these discoveries until they have been examined by an archaeologist and, if necessary, have been processed according to 36CFR800.13(b)(3).

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